

June/July 2015



Veterinary Services Newsletter

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Thorne/Williams Wildlife Research Center

Veterinary Services Staff

Branch Supervisor/Wildlife Veterinarian: Dr. Mary Wood

Laboratory Supervisor: Hank Edwards

Senior Lab Scientist: Hally Killion

Senior Lab Scientist: Jessica Jennings-Gaines

Brucellosis Lab Assistant: Kylie Sinclair

Wildlife Disease Specialist: Terry Creekmore

TWRC Manager: Matt Huizenga

Wildlife Biologist: Cole Hansen

Biologist: Sam Lockwood

Intern: Sierra Amundson

Bighorn Sheep Study Winds Down

June and July were very busy at Sybille with monitoring lambs for our respiratory disease research. Nine total lambs were born to the study and each lamb was monitored twice a day by our intern, Sierra. Despite our high hopes for this year's study, all of the lambs again developed respiratory disease. The pathogens and patterns of disease seen in this year's study appeared different from the previous two years and we are getting ready to sit down and analyze all of the data for publication. While we have yet to find an answer for how to manage respiratory disease in free-ranging bighorn sheep,



CSU vet student, Kelsey, cools down an elk with water before sedating it for sampling

our captive research has helped us significantly in understanding the roles of pathogens in disease and the potential for chronic herd infections.



A ewe and 2 lambs being monitored in their lambing pen.

CWD Study Continues

June and July saw a continuation of our CWD vaccine study. All remaining study elk were sedated and biopsied to determine if they are positive for Chronic Wasting Disease. Two veterinary students from CSU joined us to learn about captive elk research and CWD. Results from the biopsies help us to determine whether differences between vaccine and control groups can be detected earlier in the course of disease. So far results from our study indicate that the vaccine is not producing a protective effect against chronic wasting disease infection. We expect the study to be complete by summer 2016.

New Elk Calves!

This year, we are hand-rearing 3 elk calves at Sybille. These calves have been bred to have genetics that give them a prolonged life in the face of chronic wasting disease. We expect these calves to live for at least 15 years despite heavy exposure to chronic wasting disease. Hand rearing will make the calves more comfortable around people and easier to handle for teaching purposes.



Sierra works on halter training an elk calf



Sierra bottle feeds 2 elk calves

Wildlife Disease Laboratory

Brucellosis Surveillance Preparations Underway

Laboratory staff spent the majority of the month of June finishing up our major disease surveillance projects and preparing for the next surveillance season. The big project for the summer will be assembly of blood kits for our brucellosis surveillance in hunter-killed elk; with a goal of 10,000 kits assembled, addressed and ready for the post office by August 30th. To assemble this many kits requires a significant contribution from lab personnel, the phone bank, student employees of the Wyoming State Veterinary Laboratory, as well as our own

Kylie Sinclair who have all pitched in to making this program such a success.



Preassembled blood tubes, paper towels and zip lock bags for blood kit assembly

boundaries. As a result, having comparable data will serve as a foundation for hopefully developing adaptive management approaches to minimize or mitigate impacts on herd health and performance.



Dr. Peregrine Wolff demonstrates healthy lambs at the train the trainer workshop in Fort Collins

Bighorn Sheep Respiratory Disease: Train the Trainer

Mary and Hank were invited to provide training for an advanced training workshop on bighorn sheep respiratory disease investigation.

This three day workshop was recommended by WAFWA and hosted by the Colorado parks and Wildlife, Wildlife Health Program. The workshop was designed to provide representatives from all western states and provinces with first-hand experience in field and laboratory techniques when surveying for respiratory disease pathogens. The overall goal was to train and help foster more consistent and comparable data on regional bighorn respiratory disease investigations across state and province



Train the Trainer attendees learn about live bighorn sheep clinical assessment and sampling

Bighorn Sheep Meetings and Presentations

Mary and Hank presented to the Wild Sheep Foundation annual meeting in Casper. Mary discussed bighorn sheep research and reproduction, while Hank gave an overview of our bighorn sheep herd health surveillance findings to date. In addition, Mary and Hank attended the Bighorn Sheep Working Group meeting in Burgess Junction and presented similar presentations to members of the Wild Sheep Foundation at the Bighorn Sheep Summit meeting the following day.

Chronic Wasting Disease Management Plan

As a final note, Mary and Hank met with the Wildlife Administration to refine and update the Department's Chronic Wasting Disease Management Plan. The revised plan is significantly different than the old plan that was last updated in 2010. The plan will soon be presented for public comments and finally seek approval by the Commission. Mary and Hank also joined the Wildlife Administration in meeting with the Forrest Service in Jackson to discuss our CWD plan and how it pertains to their recent reevaluation of the Alkali Feedground permit.



Blood collection kit used for brucellosis surveillance in hunter-killed elk

Wildlife Necropsy Summary

Nineteen wildlife cases were submitted for diagnostics in June/July

Species	Date Received	County	Diagnosis
Rabbit	9-Jul	Laramie	Enteric Coccidiosis
Mule Deer Serum	7/14/2015	Park	Pending
Pronghorn	7/16/2015	Converse	Pending
Elk	7/17/2015	Albany	Chronic Wasting Disease
Black Bear	7/21/2015	Albany	Gunshot
Moose	7/21/2015	Albany	Pending
Weasel	7/21/2015	Albany	Pending
Pack Rat	7/21/2015	Albany	Undetermined
Rabbit	7/21/2015	Albany	Tularemia
Brown-headed Cowbird	7/27/2015	Freemont	Pending
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Rabbit	7/28/2015	Platte	Tularemia
Rabbit	7/28/2015	Platte	Tularemia
Rabbit	7/30/2015	Albany	Tularemia
White-tailed deer	6/8/2015	Laramie	Adenovirus
Magpie	6/8/2015	Carbon	Undetermined
Mule Deer	6/9/2015	Freemont	Undetermined
Great Horned Owl	6/16/2015	Laramie	Trauma
Rabbit	6/25/2015	Park	Pending

Case of the Month

Wyoming Game and Fish warden Bill Brinegar was called to investigate a report of a dead cotton-tailed rabbit in Laramie. A necropsy revealed the rabbit had died of tularemia. Tularemia is a bacterial disease most commonly found in rabbits and rodents such as beavers, muskrats, voles and squirrels but most species of mammals are susceptible to infection. The disease is spread through direct contact with infected blood or tissues, inhalation of infected particles or by bites from blood-feeding arthropods including ticks, mosquitoes, fleas and deer or horse flies. Effective antibiotic treatment is available for persons infected with the bacteria. Questions regarding human infection should be directed to the Wyoming State Department of Health or information is available at the CDC website <http://www.cdc.gov/Tularemia/>.